

**ABSTRACT****Process for the production of synthetic magnesium silicate compositions**

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A process for the preparation of a synthetic magnesium silicate having a crystal structure similar to natural hectorite, comprises the steps of a) forming a precursor slurry, b) subjecting said precursor slurry to a continuous hydrothermal reaction in a pipe reactor at a temperature of from 210 to 400°C and under a pressure of at least 20 bar for 10 seconds to 4 hours, and c) washing and filtering to remove water soluble salts formed in the preparation of the precursor slurry, characterised in that said precursor slurry is not washed and filtered before it is subjected to said continuous hydrothermal reaction. The process enables a significant reduction in processing time over current commercial batch processes.

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